BALLUFF

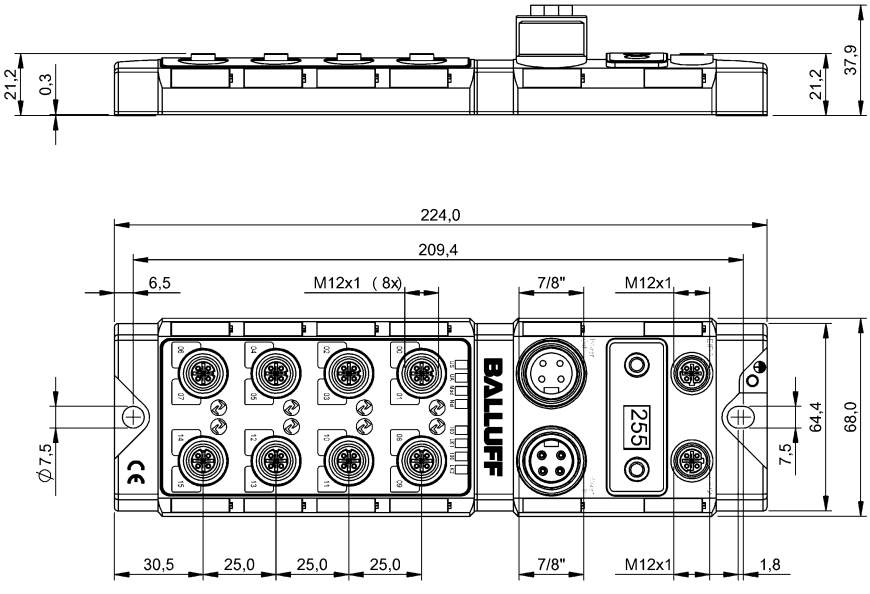
sensors worldwide

BNI EIP-508-105-Z015

IP67 Modules

8 IO-Link/In-/Outputs, 8 In-/Outputs

User's Guide



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1 Notes

1.1. About this guide

The BNI EIP-… serves as a decentralized IO-Link, input and output module for connecting to an EtherNet/IP™ network.

1.2. Structure of the guide

The guide is organized so that the chapters build on one another.
Chapter 2: Basic safety information.
Chapter 3: The main steps for installing the device.
Chapter 4: Technical data for the device
Chapter 5: Integration
Chapter 6: Process data
Chapter 7: Display
Chapter 8: Webserver
Chapter 9:Appendix

1.3. Typographical Conventions

The following typographical conventions are used in this Guide.

Enumerations

Enumerations are shown in list form with bullet points.

- Entry 1,
- Entry 2.

Actions

Action instructions are indicated by a preceding triangle. The result of an action is indicated by an arrow.

➢ Action instruction 1.
↳ Action result.
➢ Action instruction 2.

Procedures can also be shown as numbers in brackets.

(1) Step no. 1
(2) Step no. 2

Syntax

Numbers:
Decimal numbers are shown without additional indicators (e.g. 123),
Hexadecimal numbers are shown with the additional indicator hex (e.g. 00_{hex}) or with the prefix “0x” (e.g. 0x00)

Cross-references

Cross references indicate where additional information on the topic can be found (see chapter 4 ”Technical Data”).

1.4. Symbols

Note tip
This symbol indicates general notes.

Note
This symbol indicates a security notice which most be observed.

1.5. Abbreviations

BNI	Balluff Network Interface
I	Standard input port
EIP	EtherNet/IP™
EMC	Electromagnetic Compatibility
FE	Function ground
O	Standard output port

2 Safety

2.1. Intended use

This guide describes The BNI EIP-… serves as a decentralized IO-Link, input and output module for connecting to an EtherNet/IP™ network.

2.2. General safety notes

Installation and startup are to be performed only by trained specialists. Any damage resulting from unauthorized manipulation or improper use voids the manufacturer's guarantee and warranty.
The device is in accordance with EMC Class A. Such equipment may generate RF noise. The operator must take precautionary measures accordingly.
The device must be powered only using an approved power supply (see chapter 4 "Technical data"). Only approved cable may be used.

Operating and testing
The operator is responsible for observing local prevailing safety regulations.
When defects and non-clearable faults in the device occur, take it out of service and secure against unauthorized use.
Approved use in ensured only when the housing is fully installed.

2.3. Meaning of the warnings

Note!
The pictogram used with word "Caution" warns of a possible hazardous situation affecting the health of persons or equipment damage. Ignoring these warnings can result in injury or equipment damage.
Always observe the described measures for preventing this danger.

3 Getting Started

3.1. Module overview

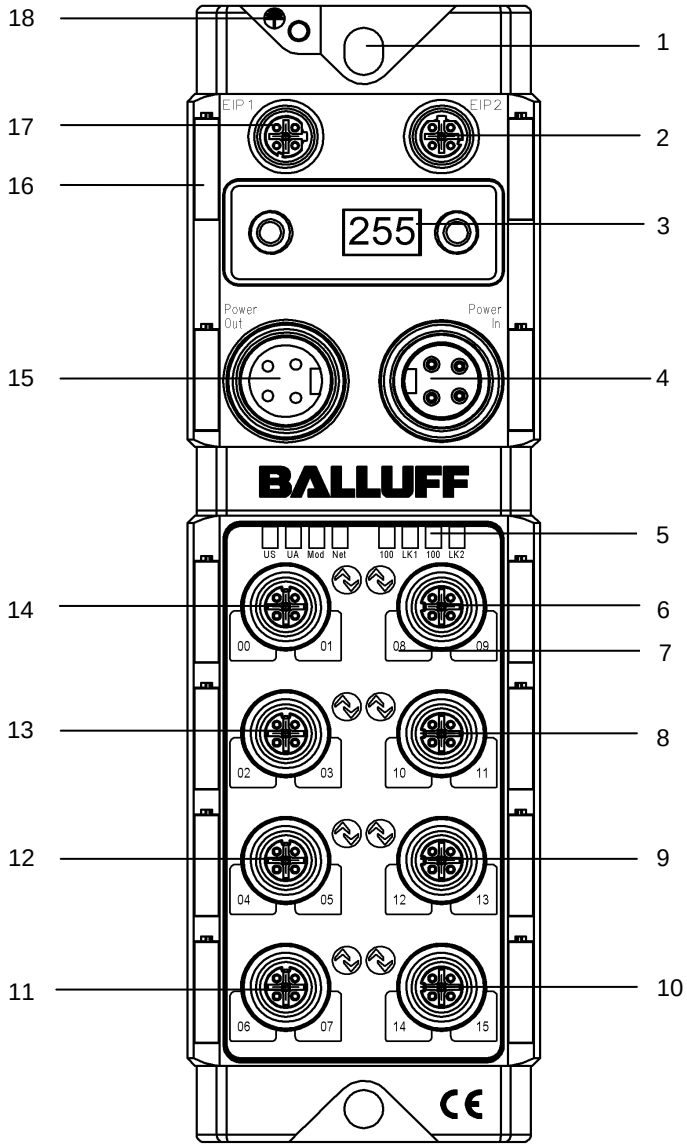


Figure 0.1 – Overview BNI EIP-508-105-Z015

1	Mounting hole	10	Port 7 (IO-Link, standard I/O)
2	EtherNet/IP™ port 2	11	Port 3 (IO-Link, standard I/O)
3	Display	12	Port 2 (IO-Link, standard I/O)
4	Power supply input port	13	Port 1 (IO-Link, standard I/O)
5	Status LED: communication / module	14	Port 0 (IO-Link, standard I/O)
6	Port 4 (IO-Link, standard I/O)	15	Power supply output port
7	Pin/Port LED: signal status	16	Label
8	Port 5 (IO-Link, standard I/O)	17	EtherNet/IP port 1
9	Port 6 (IO-Link, standard I/O)	18	Grounding connection

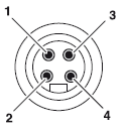
3 Getting Started

3.2. Mechanical connection

The module is attached using 2 M6 screws and 2 washers.
Isolation pad as accessory available

3.3. Electrical connection

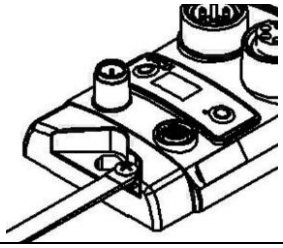
Power supply



Pin	Function	Description
1	+24 V	Actuator supply
2	+24 V	Sensor / Module supply
3	0 V	Sensor / Module supply, Common GND
4	0 V	Actuator supply, Common GND

Note
Provide sensor/bus power and actuator power from separate power sources if possible.
Total current <9A. The total current of all modules may not exceed 9A even when daisy chaining the actuator supply.

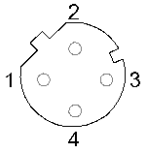
Grounding



Note!
The FE connection from the housing to the machine must be low-impedance and kept as short as possible.

Ethernet IP interface

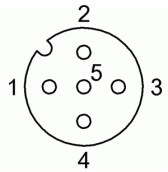
M12, D-coded, female



Pin	Function
1	Tx+
2	Rx+
3	Tx-
4	Rx-

IO-Link-port

M12, A-coded, female



Pin	Function
1	+24V, 1.6 A
2	Input / Output 2 A
3	GND
4	IO-Link / Input / Output 1.6 A
5	n.c.

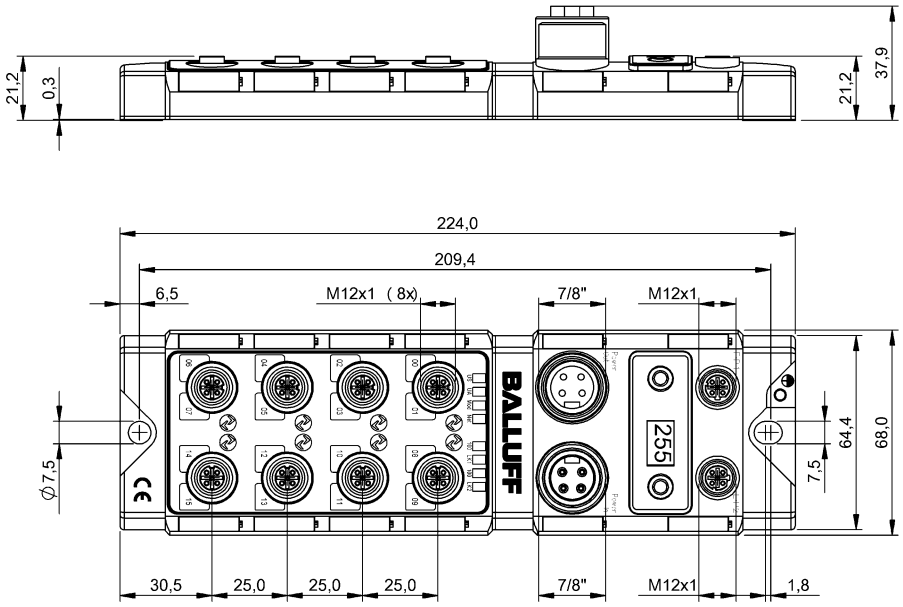
Note!
For the digital sensor inputs follow the input guideline per EN61131-2, type 2.

Note!
Total current of the module has to be lower than 9 amperes.

Note!
Unused I/O port socket must be fitted with cover caps to ensure IP67 protection rating.

4 Technical data

4.1. Dimensions



4.2. Mechanical data

Housing material	Die case zinc, matt nickel plated
Enclosure rating per IEC 60529	IP 67 (only when plugged-in and threaded-in)
Supply voltage	7/8” 4-pin male
Input ports / Output ports	M12, A-coded (8 x female)
Dimensions (W x H x D in mm)	68 x 224 x 30.9
Mounting type	2-hole screw mount
Ground strap attachment	M4
Weight	Approx. 670 gr.

4.3. Operating conditions

Operating temperature T_a Storage temperature	-5 °C ... 70 °C -25 C ... 70 °C
EMC - Immunität / Immunity - Emission / Emission	EMC-directive 2004/108/EEC - EN 61000-6-2 - EN 61000-6-4
Shock/vibration	EN 60068-2-6, EN 60068-2-27 EN 60068-2-29, EN 60068-2-64

4.4. Electrical data

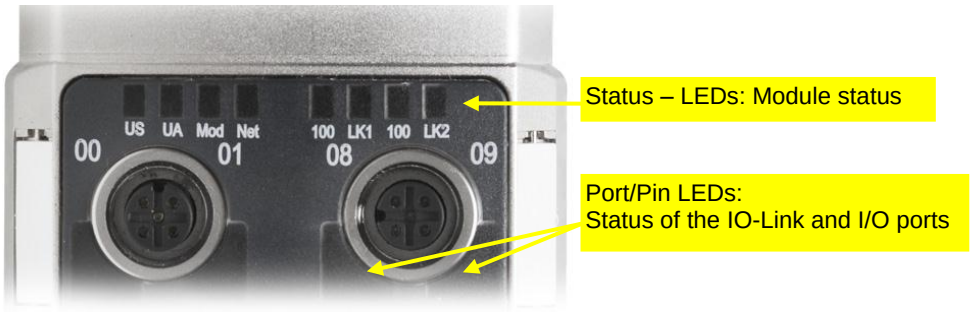
Supply voltage	18...30.2 V DC, per EN 61131-2
Ripple	<1%
Input current at 24 V	130 mA

4 Technical data

4.5. Ethernet

Ethernet IP port	2 x 10Base-/100Base-Tx
Connection for Ethernet IP port	M12, D-coded, female
Cable types per IEEE 802.3	Shielded twisted pair min. STP CAT 5/ STP CAT 5e
Data transmission rate	10/100 Mbit/s
Max. cable length	100 m
Flow control	Half Duplex/Full Duplex (IEEE 802.33x-Pause)

4.6. Function indicators



Module status

LED	Display	Description
UA	green	Output power OK
	red flashing	Low output power (< 18V)
	red	No output power (< 11V)
US	green	Input power OK
	red flashing	Low input power (<18V)
Mod	green flashing	Wrong or no configuration on module
	green	Module operating
	red flashing	Fixed bus clock is not possible
	red-green flashing	Initial sequence
Net	off	Module got no IP address
	green flashing	Module got IP, but no connection could be established
	green	Connection established
	red flashing	Connection timeout
	red-green flashing	Initial sequence
100	off	Bus clock: 10 Mbit/s
	yellow	Bus clock: 100 Mbit/s
LNK	green	Data transfer

Port

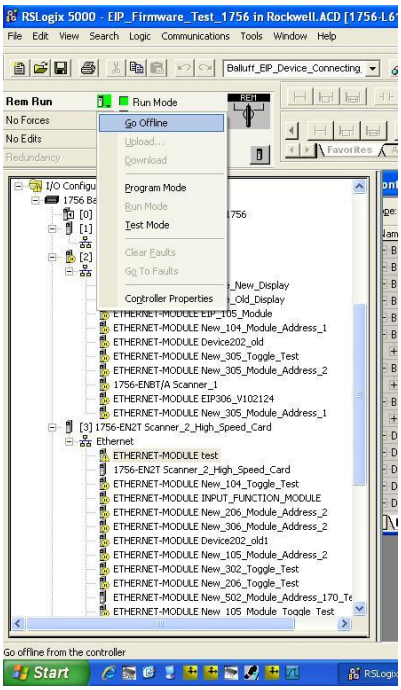
Each Port has two two-color LEDs to indicate the I/O-States.

	Display	Status	Description
I/O Port	off	I/O-State	State of the input or output pin is 0
	yellow	I/O-State	State of the input or output pin is 1
	red flashing	Short-circuit	Short-circuit between pin 1 and 3
	red	Short-circuit	Short-circuit on dedicated pin
IO-Link Port	green	IO-Link	IO-Link communication running
	Green flashing	IO-Link	No IO-Link communication
	red	Short-circuit	Short-circuit on pin 4
	red flashing	IO-Link	IO-Link device has wrong configuration

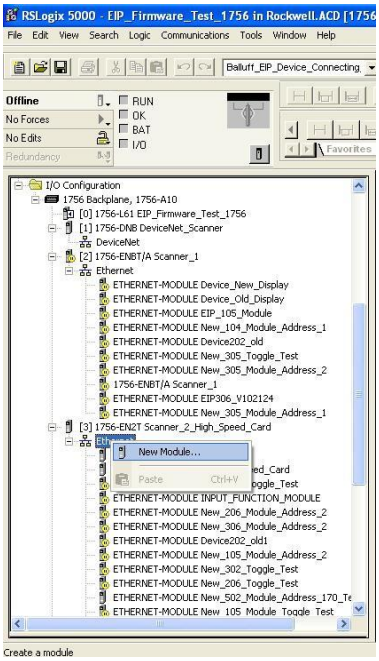
5 Integration

Here you for example can see how to include the module in Rockwell RS Logix 5000:

First you have to go offline

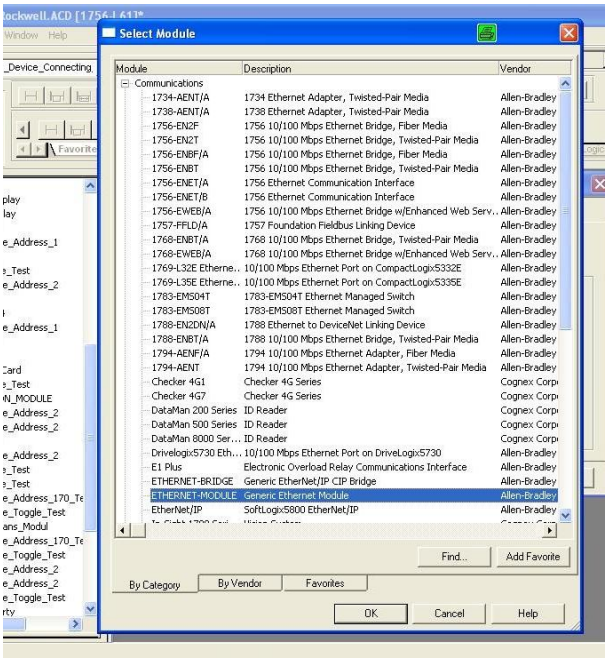


Do a right mouse click on Ethernet (on the correct scanner card)
an choose new module

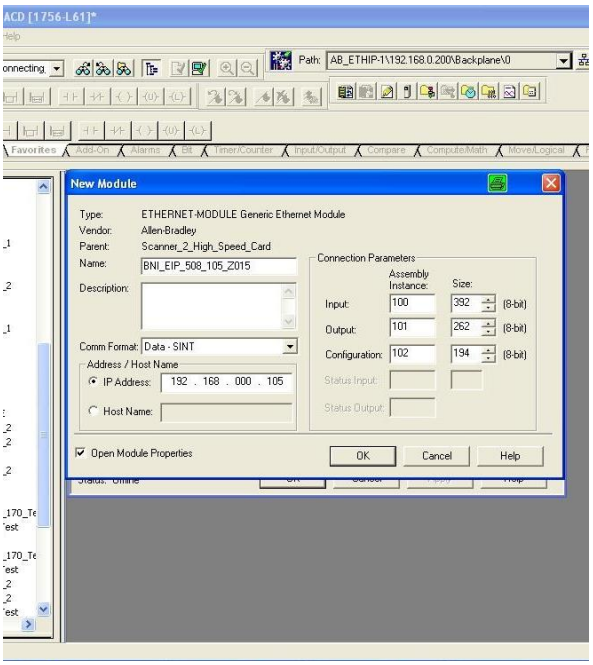


5 Integration

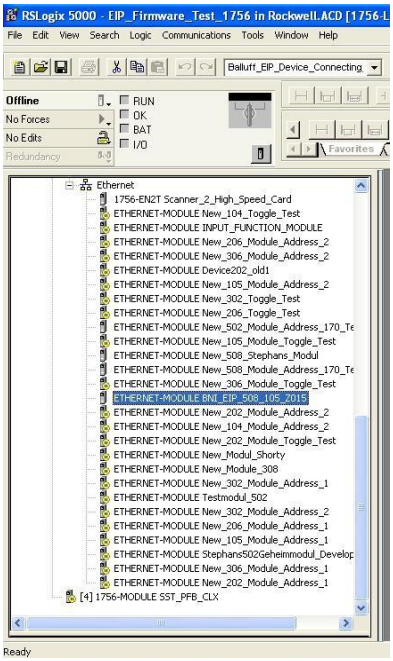
Then you have to choose the ETHERNET-Module Generic Ethernet module
On the path communications



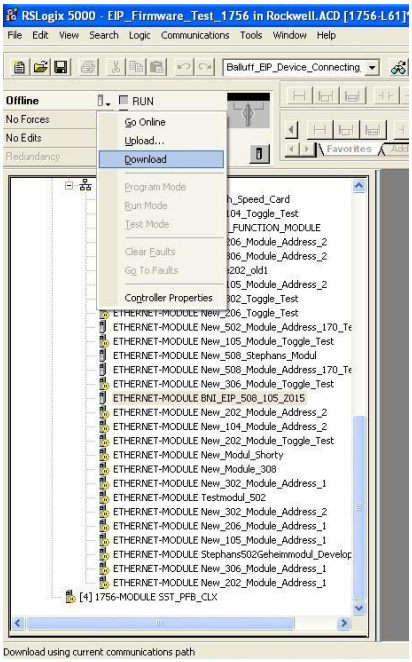
Now you have to type in a user-defined Tag name,
to choose the comm. format Data-SINT,
to type in the IP-address of the module and to type in the correct connection parameters.



The new Module and the correspondent controller tags will be generated automatically.

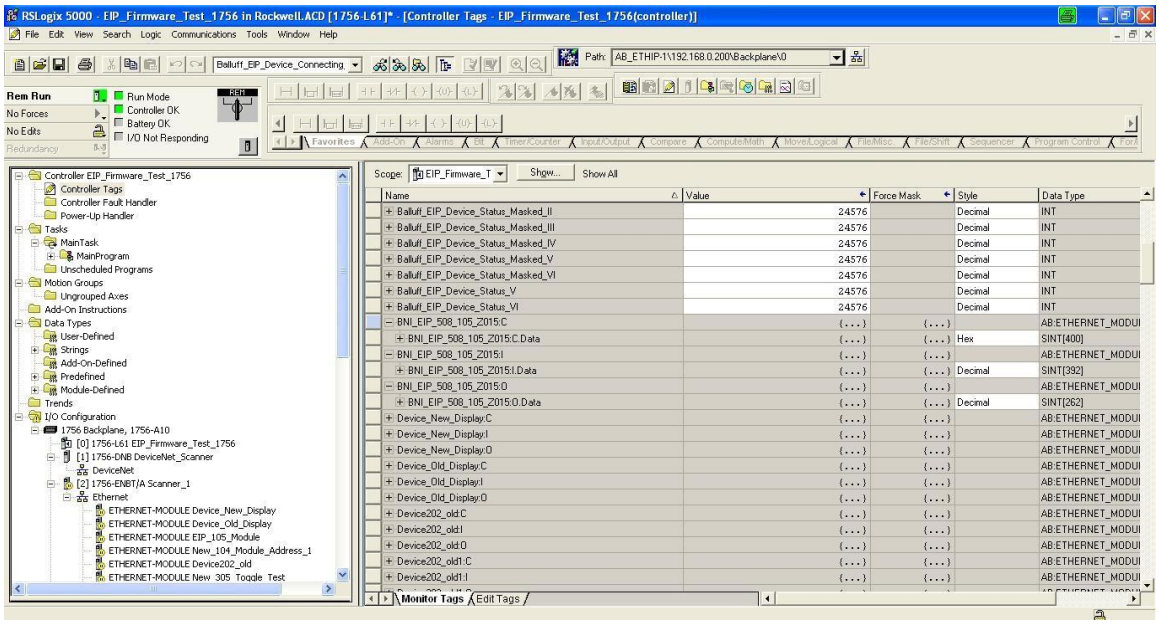


Now you have to download the configuration



5 Integration

When the download is done, you can observe and control the tags via the option controller tags. Please make sure that you choose the correct tag name which you have configured before.
The input, output and configuration data therefore are described in the following pages.
You can also use this tags for programming.



5 Integration

5.1. Data configuration

Please enter the following values to your Control System. They describe the data sizes for input, output and configuration data.

	Instance ID	Data length
INPUT	100	392
OUTPUT	101	262
CONFIG	102	194

5.2. Configuration data

In the following tables you can see the mapping of the configuration data string. The default values which are stated below describe a configuration with IO-Link function on pin 4 and standard I/O function on pin 2 and pin 4 of each port. The input and output function of the configured standard I/O ports is set by process data. (See 6.1 standard input data and 6.2 standard output data)

Byte	Slot	Module part	Description
0…1	1	Module	General configuration for the whole module
2…25	2	IO-Link port 0	Configuration for the IO-Link port 0
26…49	3	IO-Link port 1	Configuration for the IO-Link port 1
50…73	4	IO-Link port 2	Configuration for the IO-Link port 2
74…97	5	IO-Link port 3	Configuration for the IO-Link port 3
98…121	6	IO-Link port 4	Configuration for the IO-Link port 4
122…145	7	IO-Link port 5	Configuration for the IO-Link port 5
146…169	8	IO-Link port 6	Configuration for the IO-Link port 6
170…193	9	IO-Link port 7	Configuration for the IO-Link port 7

Module configuration

Byte	Bit 7	6	5	4	3	2	1	0	Description
0	P3		P2		P1		P0		Port function *0x00: Standard I/O* *0x01: IO-Link*
1	P7		P6		P5		P4		

IO-Link port configuration

Byte	Bit 7	6	5	4	3	2	1	0	Description
2	Base		Time						Cycle Time
3	Validation type								Validation type *0 no validation* *1 compatible (VID + DID)* *2 identical (VID + DID + SerNum)*
4	Vendor ID 1								Vendor ID
5	Vendor ID 2								
6	Device ID 1								Device ID
7	Device ID 2								
8	Device ID 3								
9	Serial number 1								Serial number
…	…								
24	Serial number 16								
25	Parameter server								Parameter server *0x8X Enable* *0x0x Disable* *0x4X Clear* *0xX1 Upload enable* *0xX2 Download enable*
…	The data of the other IO-Link ports has the same structure and follows here								

6 Process Data

6.1. Process data inputs

There are 200 bytes of Input data. Have a look at the tables below to see the mapping of the process data inputs.

Byte	Module part	Description
0…7	Standard I/O ports	Process data inputs on standard Inputs
8…55	IO-Link port 0	Process data inputs on IO-Link port 0
56…103	IO-Link port 1	Process data inputs on IO-Link port 1
104…151	IO-Link port 2	Process data inputs on IO-Link port 2
152…199	IO-Link port 3	Process data inputs on IO-Link port 3
200…247	IO-Link port 4	Process data inputs on IO-Link port 4
248…295	IO-Link port 5	Process data inputs on IO-Link port 5
296…343	IO-Link port 6	Process data inputs on IO-Link port 6
344…391	IO-Link port 7	Process data inputs on IO-Link port 7

Standard input data

Byte	Bit 7	6	5	4	3	2	1	0	Description
0	I32	I34	I22	I24	I12	I14	I02	I04	Input data *I04 → Input on port 0 pin 4* *If a port is configured as an IO-Link port, result is 0.*
1	I72	I74	I62	I64	I52	I54	I42	I44	
2	S3		S2		S1		S0		Short circuit status *Short circuit between pin 1 and 3 on stated port*
3	S7		S6		S5		S4		
4	O32	O34	O22	O24	O12	O14	O02	O04	Overload status *O04 → Overload on port 0 pin 4* *Only if port is configured as output*
5	O72	O74	O62	O64	O52	O54	O42	O44	
6	0	0	0	0	0	NA	PS	PA	Power status *NA: No actuator supply* *PS: Sensor power* *PA: actor power*
7	0	0	0	0	0	0	0	0	*Reserved*

IO-Link input data

Byte	Bit 7	6	5	4	3	2	1	0	Description
8 … 39									IO-Link port 0 Input data
40	0	0	0	0	0	0	DC	IOL	IO-Link status *IOL: Port in IO-Link mode* *DC: Device connected* *0: reserved*
41	SC	0	0	0	0	PDI	DF	VF	IO-Link Error *VF: Validation failed* *SC: IO-Link short circuit* *DF: Data storage validation failed* *PDI: Process data invalid*
42	Vendor ID 1								Vendor ID
43	Vendor ID 2								
44	Device ID 1								Device ID
45	Device ID 2								
46	Device ID 3								
47	Error Code								Event 1
48	Additional Code								
49	Additional Code								
50	Error Code								Event 2
51	Additional Code								
52	Additional Code								
53	Error Code								Event 3
54	Additional Code								
55	Additional Code								
…	The data of the other IO-Link ports has the same structure and follows here								

6 Process Data

6.2. Process data outputs

There are 134 bytes of output data. Have a look at the tables below to see the mapping of the process data outputs.

Byte	Module part	Description
0…5	Standard I/O ports	Process data outputs on standard Inputs
6…37	IO-Link port 0	Process data outputs on IO-Link port 0
38…69	IO-Link port 1	Process data outputs on IO-Link port 1
70…101	IO-Link port 2	Process data outputs on IO-Link port 2
102…133	IO-Link port 3	Process data outputs on IO-Link port 3
134…165	IO-Link port 4	Process data outputs on IO-Link port 4
166…197	IO-Link port 5	Process data outputs on IO-Link port 5
198…229	IO-Link port 6	Process data outputs on IO-Link port 6
230…261	IO-Link port 7	Process data outputs on IO-Link port 7

Standard output data

Byte	Bit								Description
	7	6	5	4	3	2	1	0	
0	O32	O34	O22	O24	O12	O14	O02	O04	Output data *O04 → Output on port 0 pin 4* *To use this function on a IO-Link port the port must be configured as an output (see 0- Module configuration)*
1	O72	O74	O62	O64	O52	O54	O42	O44	
2	R32	R34	R22	R24	R12	R14	R02	R04	Restart *Restart output here after a detected short-circuit*
3	R72	R74	R62	R64	R52	R54	R42	R44	
4	0	0	0	0	0	0	0	0	*Reserved*
5	0	0	0	0	0	DL	GO	RO	Display Control *DL: Display lock / PLC lock* *GO: Green LED on display on* *RO: Red LED on display on*

IO-Link output data

Byte	Bit								Description
	7	6	5	4	3	2	1	0	
6…37									IO-Link port 0 output data
…	The data of the other IO-Link ports has the same structure and follows here								

7 Display

7.1. General

With the implemented display, the address is set directly on the BNI EIP… devices.
The following address types are implemented:

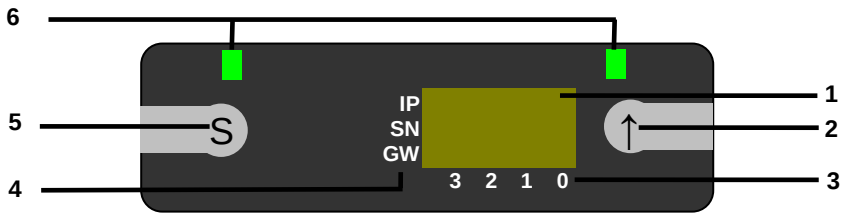
- IP address
- Subnet mask
- Gateway address.

Each address type consists of 4 octets.
Additional the display shows information about the hard- and firmware revision.
There is a lock function for the display which can be activated out of the control system. If the lock is set editing isn't possible anymore (see Bit layout, chapter 6.2 Standard output data).

7.2. Adress defaults

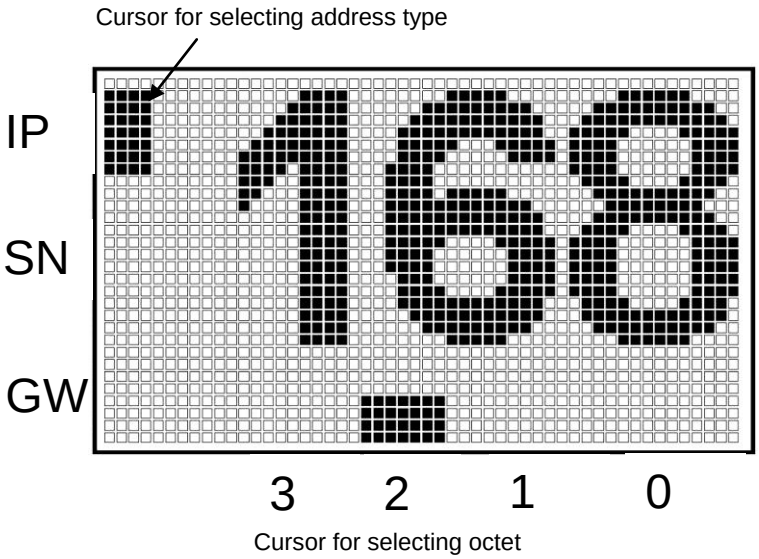
IP Address: 169.254.1.1
Subnetmask: 255.255.255.0
Gatewayaddress: 0.0.0.0

7.3. Controls and visualization



1 Display
2 Arrow-Key
3 Octett-Cursor
4 Address type cursor
5 „Set"-Key
6 LED

7.4. Display information



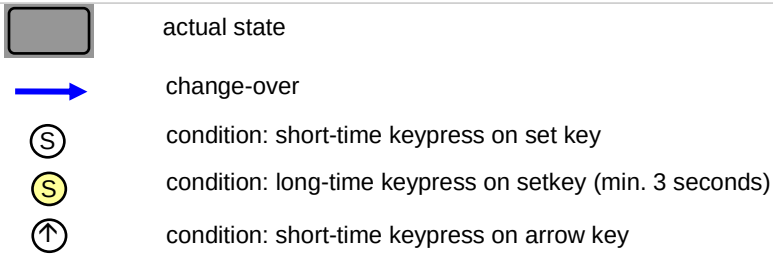
IP: IP address
SN: Subnet address
GW: Gateway address

3: first octet
2: second octet
1: third octet
0: fourth octet

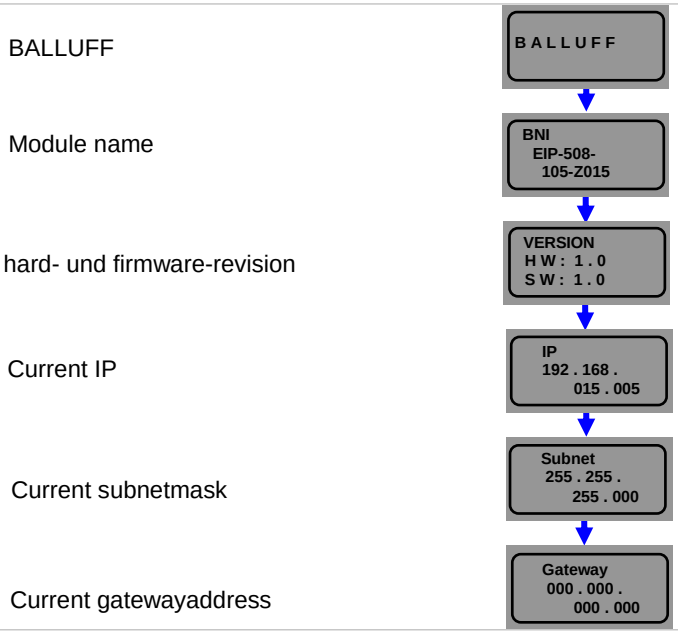
7 Display

7.5. Design and symbols

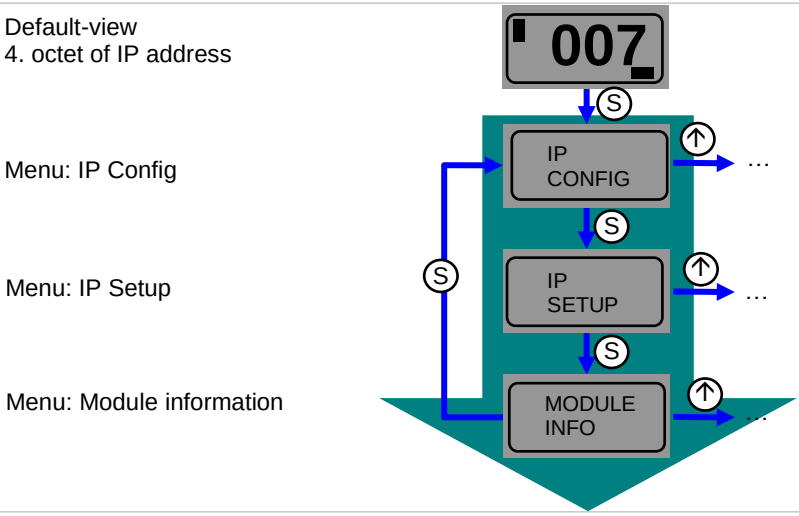
There are some symbols used in the following flow-charts to describe the display-functionality:


actual state
change-over
condition: short-time keypress on set key
condition: long-time keypress on setkey (min. 3 seconds)
condition: short-time keypress on arrow key

7.6. Startup



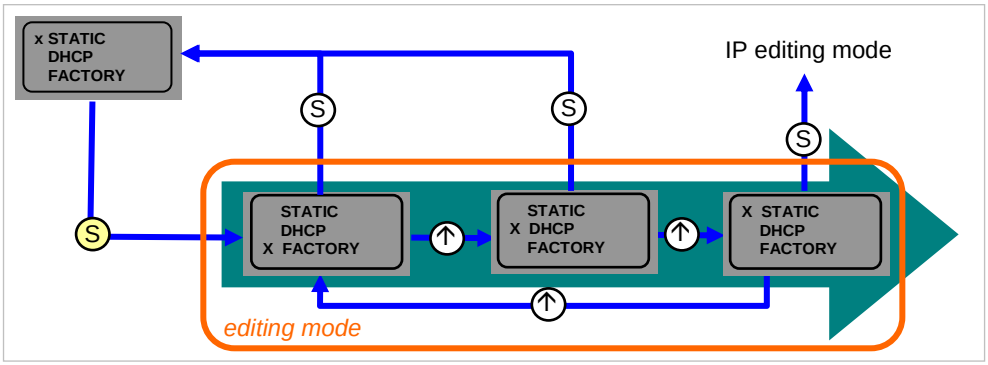
7.7. Main menu



- Scrolling in main menu with short-time keypress on set-key
- Step in menu with short-time keypress on arrow-key

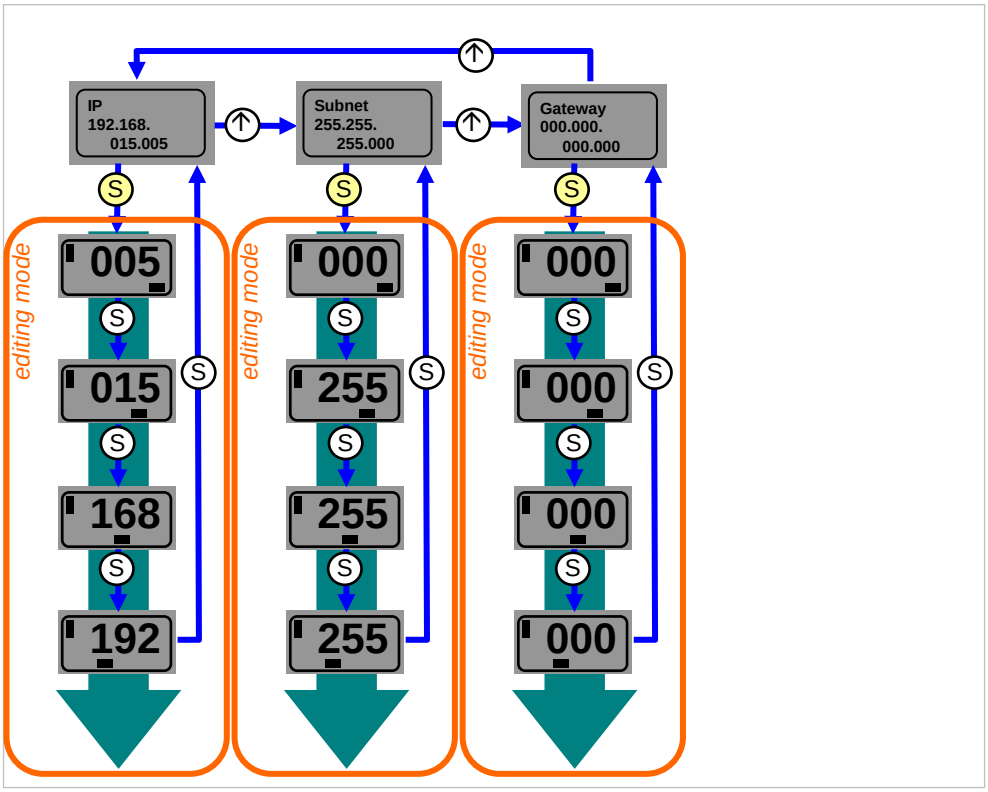
7 Display

7.8. IP setup



- Long-time keypress on set key starts editing mode.
- Configuration of the favored value by short-time keypress on arrow-key

7.9. IP configuration

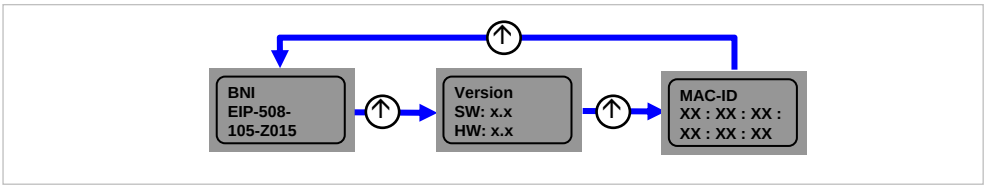


- Long-time keypress on set key starts editing mode.
- Configuration of the favored value by short-time keypress on arrow-key
- Long-time keypress on arrow key uses fast program mode
- Shorttime keypress on set key saves entered value and scrolls to the next octet. The 4.octet is the start of editing
- The whole entered address gets saved by short keypress on set value when editing first octet. The entered value can immediately seen on the ip overview screen.
- Manual changes of ip, subnet or gateway results in automatic change to “static” in IP Setup.

Note:
To work with the new configuration the module needs a power-down reset.

7 Display

7.10. Module information



- By short-time key press on arrow key you can scroll through module information menu.
- Information are the product name, the module revisions and the MacID.

7.11. General Information

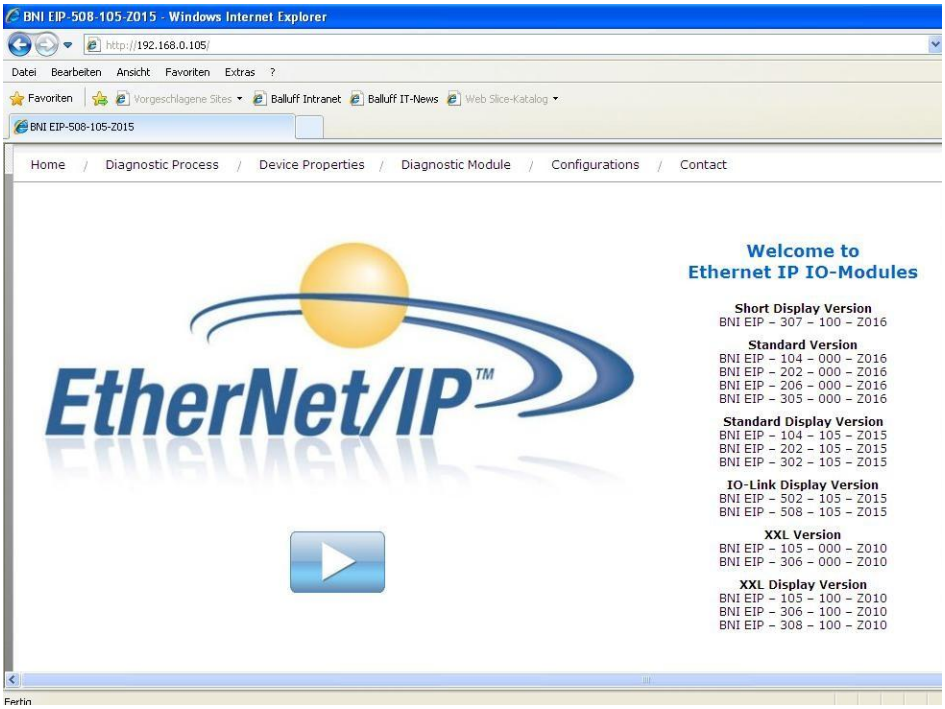
- Long-time arrow key press for „fast scrolling“ in editing mode
- 10 seconds without key press results in leaving actual screen and entering the default screen mode (4th octet of ip address). Unsaved changes gets lost
- Differences between new configuration and the configuration the module is working with are shown by a unequal-symbol. In this case the time to default screen is only 5 seconds.
- In editing mode the screen flashes. In fast scroll mode the screen is flickering
- If the module receives a single ping, the word “ping” is shown in the display screen for a few seconds. Afterwards the screen is reset to the screen which had been shown before. By short-time key press on set key the ping-mode can be left preterm.
- If the module receives a double or higher ping, the word “ping” is shown in the display. This screen can be left only by short-time key press on set key. The screen shown before ping gets viewed again.
- The Led function at the display leds can be defined user specific by setting some bits in the process data outputs. (see Bitlayout, chapter 6.2 standard output data)
- The function plc-lock can also be used by setting a bit in the process data outputs. (see Bitlayout, chapter 6.2 standard output data)

Note:
Editing mode can not be chosen in display if the plc lock bit in process data outputs is (see Bitlayout, chapter 6.2 standard output data).

8 Webserver

8.1. General

The BNI EIP module includes an internal webserver to get detailed information about the current state.
Also you can use it to configure the addresses of the module and to configure and get some information of the connected IO-Link devices.
First make sure that a correct integration into your network has been done.
To get a connection to the webserver enter the IP address of the module to your browser address bar. A welcome page with a list of all Balluff Ethernet Network-interfaces is shown.
Please use Internet Explorer 7 or higher.


BNI EIP-508-105-Z015 - Windows Internet Explorer
http://192.168.0.105/
Datei Bearbeiten Ansicht Favoriten Extras ?
Favoriten
Balluff Intranet
Balluff IT-News
Web Slice-Katalog
BNI EIP-508-105-Z015
Home / Diagnostic Process / Device Properties / Diagnostic Module / Configurations / Contact
EtherNet/IP™
Welcome to
Ethernet IP IO-Modules
Short Display Version
BNI EIP – 307 – 100 – Z016
Standard Version
BNI EIP – 104 – 000 – Z016
BNI EIP – 202 – 000 – Z016
BNI EIP – 206 – 000 – Z016
BNI EIP – 305 – 000 – Z016
Standard Display Version
BNI EIP – 104 – 105 – Z015
BNI EIP – 202 – 105 – Z015
BNI EIP – 302 – 105 – Z015
IO-Link Display Version
BNI EIP – 502 – 105 – Z015
BNI EIP – 508 – 105 – Z015
XXL Version
BNI EIP – 105 – 000 – Z010
BNI EIP – 306 – 000 – Z010
XXL Display Version
BNI EIP – 105 – 100 – Z010
BNI EIP – 306 – 100 – Z010
BNI EIP – 308 – 100 – Z010

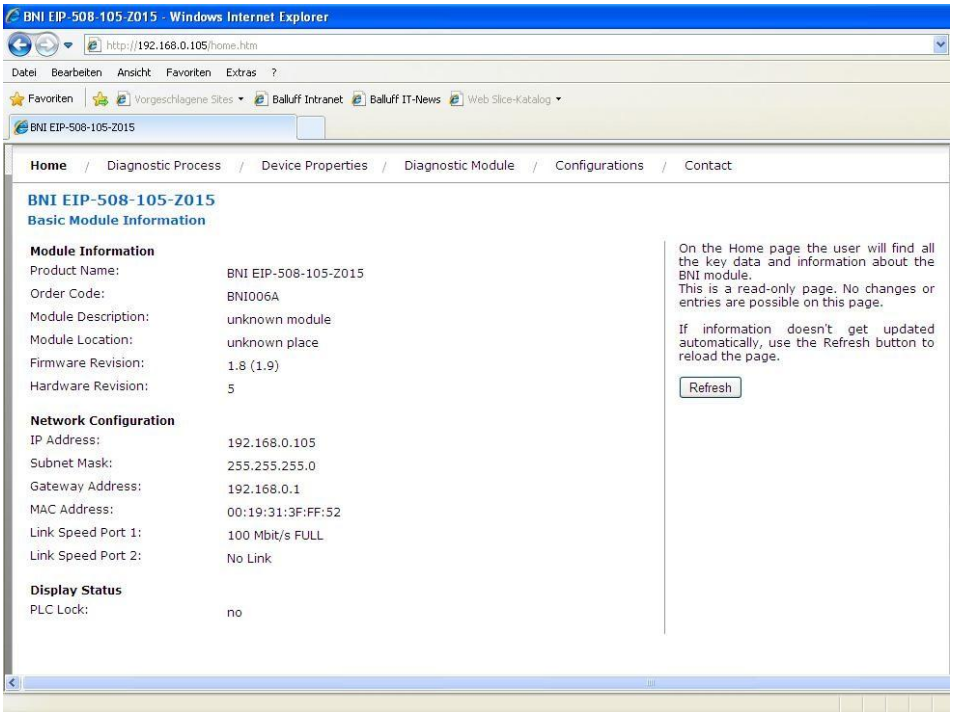
Now you have to click on the "Play" button to get to the home screen.

8 Webserver

8.2. Home

Here you can get some information about the module, the network configuration and network activity of the module. You can also see if the display lock was set via control unit.

At the top of the window you can see the navigation bar which allows you to switch between the different webpages, just click on the corresponding text.

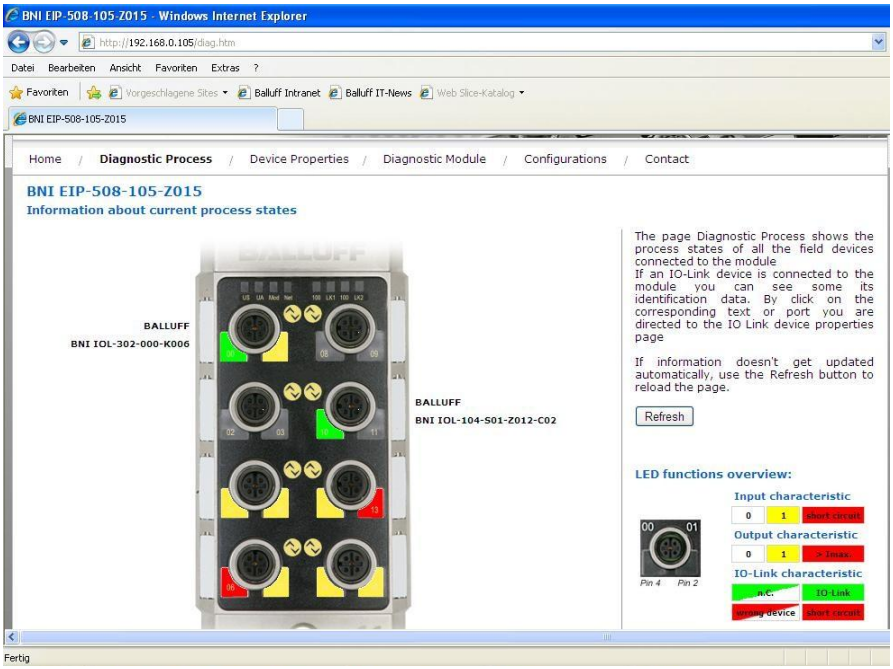

BNI EIP-508-105-Z015 - Windows Internet Explorer
http://192.168.0.105/home.htm
Datei Bearbeiten Ansicht Favoriten Extras ?
Favoriten
Balluff Intranet
Balluff IT-News
Web Slice-Katalog
BNI EIP-508-105-Z015
Home / Diagnostic Process / Device Properties / Diagnostic Module / Configurations / Contact
BNI EIP-508-105-Z015
Basic Module Information
Module Information
Product Name: BNI EIP-508-105-Z015
Order Code: BNI006A
Module Description: unknown module
Module Location: unknown place
Firmware Revision: 1.8 (1.9)
Hardware Revision: 5
Network Configuration
IP Address: 192.168.0.105
Subnet Mask: 255.255.255.0
Gateway Address: 192.168.0.1
MAC Address: 00:19:31:3F:FF:52
Link Speed Port 1: 100 Mbit/s FULL
Link Speed Port 2: No Link
Display Status
PLC Lock: no
On the Home page the user will find all the key data and information about the BNI module.
This is a read-only page. No changes or entries are possible on this page.
If information doesn't get updated automatically, use the Refresh button to reload the page.
Refresh

8 Webserver

8.3. Diagnostic process

On this page you can get some information about the modules current process data and status represented by the correspondent LEDs.

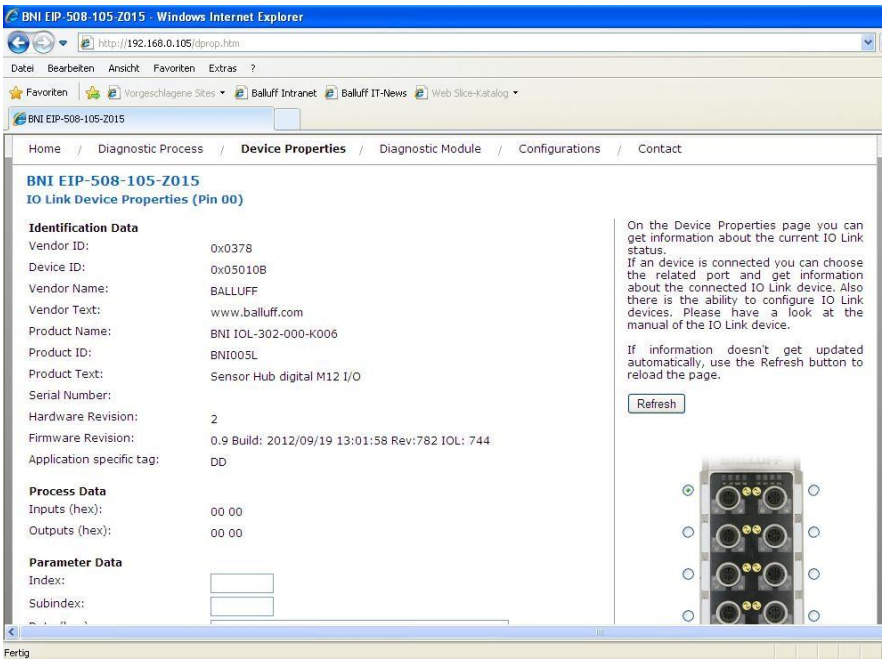
If a IO-Link device is connected to one of the configured IO-Link ports, some device data is shown besides the module.
You can click on this text to get a link to the screen "Device properties".


BNI EIP-508-105-Z015 - Windows Internet Explorer
http://192.168.0.105/diag.htm
Datei Bearbeiten Ansicht Favoriten Extras ?
Favoriten
Balluff Intranet
Balluff IT-News
Web Slice-Katalog
BNI EIP-508-105-Z015
Home / Diagnostic Process / Device Properties / Diagnostic Module / Configurations / Contact
BNI EIP-508-105-Z015
Information about current process states
BALLUFF
BNI IOL-302-000-K006
BALLUFF
BNI IOL-104-S01-Z012-C02
The page Diagnostic Process shows the process states of all the field devices connected to the module
If an IO-Link device is connected to the module you can see some its identification data. By click on the corresponding text or port you are directed to the IO Link device properties page
If information doesn't get updated automatically, use the Refresh button to reload the page.
Refresh
LED functions overview:
Input characteristic
Output characteristic
IO-Link characteristic
IO-Link
Pin 4
Pin 2
Fertig

Note tip
You can only observe the process data and current status of the module, but you cannot configure the module or set output data.
In this case you have to use the control unit with the corresponding software.

8.4. Device properties

On this page you can get information and you can see the process data of the IO-Link device which is connected to the configured IO-Link port.
To get the information and configuration of the correct IO-Link device, choose the correct port on the module graphic on the right.


BNI EIP-508-105-Z015 - Windows Internet Explorer
http://192.168.0.105/dprop.htm
Datei Bearbeiten Ansicht Favoriten Extras ?
Favoriten
Balluff Intranet
Balluff IT-News
Web Slice-Katalog
BNI EIP-508-105-Z015
Home / Diagnostic Process / Device Properties / Diagnostic Module / Configurations / Contact
BNI EIP-508-105-Z015
IO Link Device Properties (Pin 00)
Identification Data
Vendor ID: 0x0378
Device ID: 0x05010B
Vendor Name: BALLUFF
Vendor Text: www.balluff.com
Product Name: BNI IOL-302-000-K006
Product ID: BNI005L
Product Text: Sensor Hub digital M12 I/O
Serial Number:
Hardware Revision: 2
Firmware Revision: 0.9 Build: 2012/09/19 13:01:58 Rev:782 IOL: 744
Application specific tag: DD
Process Data
Inputs (hex): 00 00
Outputs (hex): 00 00
Parameter Data
Index:
Subindex:
On the Device Properties page you can get information about the current IO Link status.
If an device is connected you can choose the related port and get information about the connected IO Link device. Also there is the ability to configure IO Link devices. Please have a look at the manual of the IO Link device.
If information doesn't get updated automatically, use the Refresh button to reload the page.
Refresh
Fertig

Note tip
You can only observe the process data of the connected IO-Link device, but you cannot set the output data.
If the IO-Link device needs output data, you have to set the IO-Link output data via the control unit with the corresponding software.

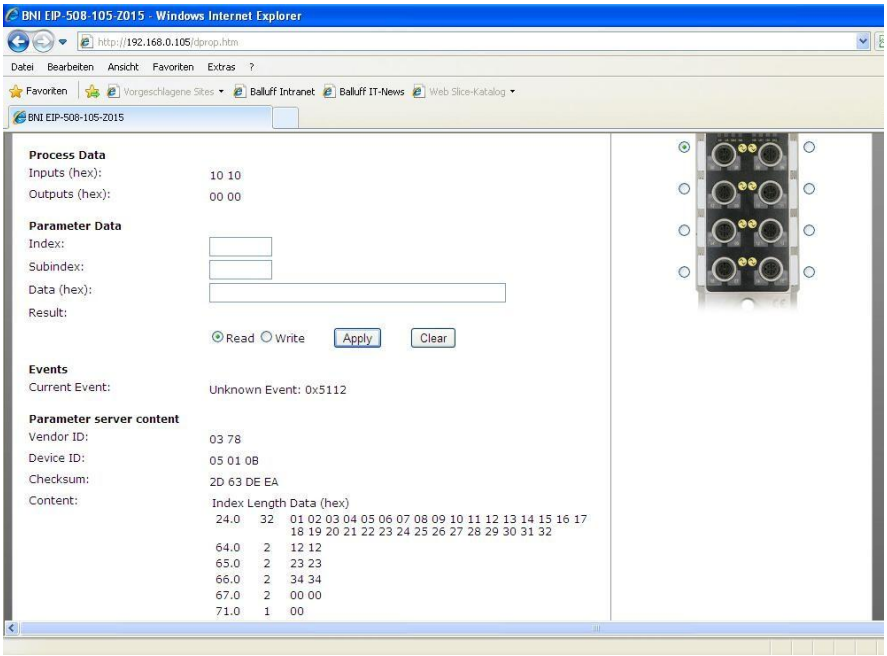
8 Webserver

On this picture you can see the "Parameter Data" options for the IO-Link device.

It is possible to read and configure parameters of the IO-Link device by using the "Parameter Data" options.
The parameter indices and subindices of the IO-Link device are described in the appendant separately user manual.

On the item "Events", you can see if there is a diagnostic event from the IO-Link device.

And at least, at the item "Parameter server content" you can see the content of the parameter server, if a parameter data is stored in the parameter server.

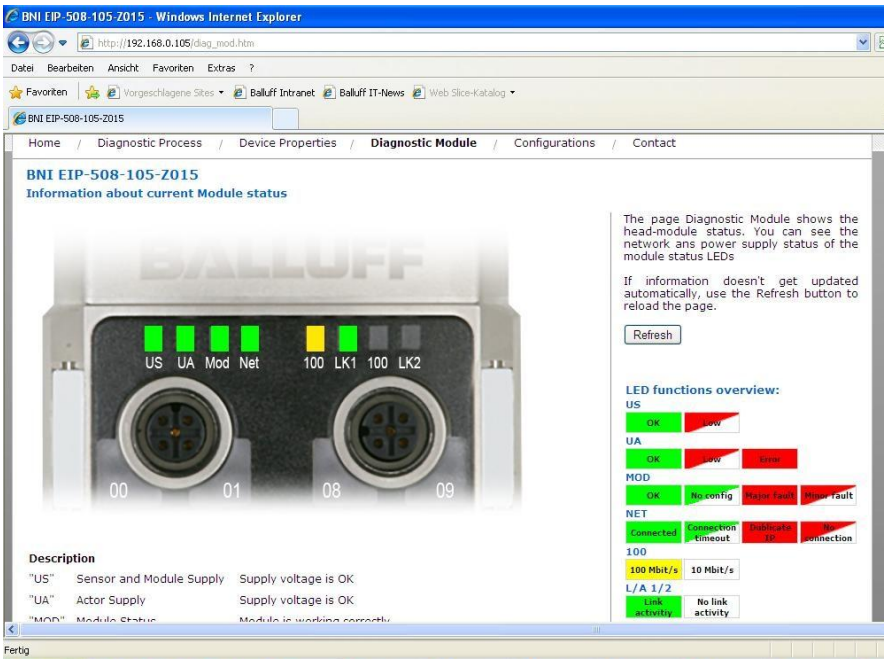

BNI EIP-508-105-Z015 - Windows Internet Explorer
http://192.168.0.105/dprop.htm
Datei Bearbeiten Ansicht Favoriten Extras ?
Favoriten Balluff Intranet Balluff IT-News
BNI EIP-508-105-Z015
Process Data
Inputs (hex): 10 10
Outputs (hex): 00 00
Parameter Data
Index:
Subindex:
Data (hex):
Result:
Read Write Apply Clear
Events
Current Event: Unknown Event: 0x5112
Parameter server content
Vendor ID: 03 78
Device ID: 05 01 0B
Checksum: 2D 63 DE EA
Content:
Index Length Data (hex)
24.0 32 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
64.0 2 12 12
65.0 2 23 23
66.0 2 34 34
67.0 2 00 00
71.0 1 00

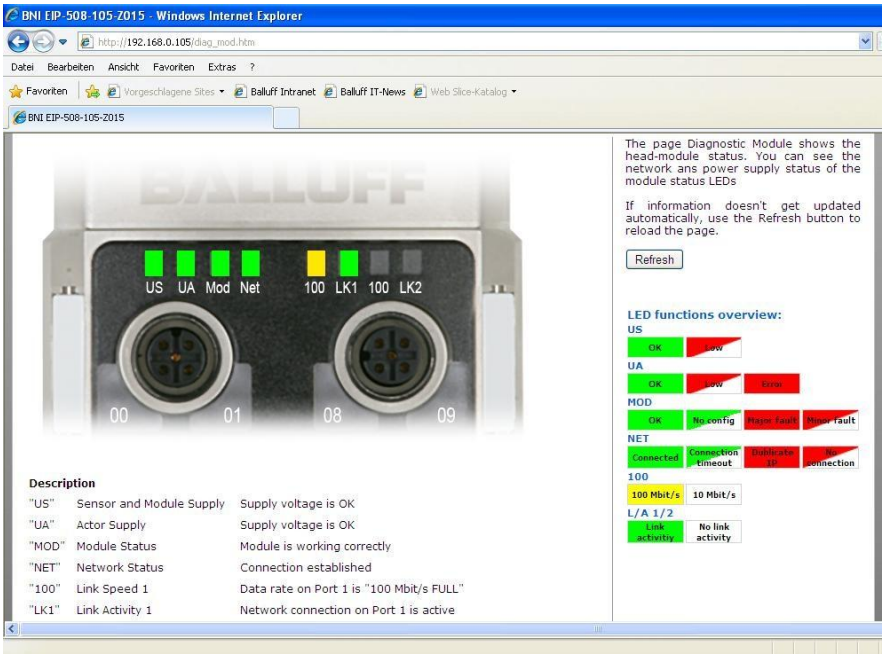
8 Webserver

8.5. Diagnostic module

On this page you can see the current module and network status like you can see it on the module itself.

The status is additional described at the item "Description".


BNI EIP-508-105-Z015 - Windows Internet Explorer
Home / Diagnostic Process / Device Properties / Diagnostic Module / Configurations / Contact
BNI EIP-508-105-Z015
Information about current Module status
US UA Mod Net 100 LK1 100 LK2
00 01 08 09
The page Diagnostic Module shows the head-module status. You can see the network ans power supply status of the module status LEDs
If information doesn't get updated automatically, use the Refresh button to reload the page.
Refresh
LED functions overview:
US
UA
MOD
NET
100
L/A 1/2
Description
"US" Sensor and Module Supply Supply voltage is OK
"UA" Actor Supply Supply voltage is OK
Fertig

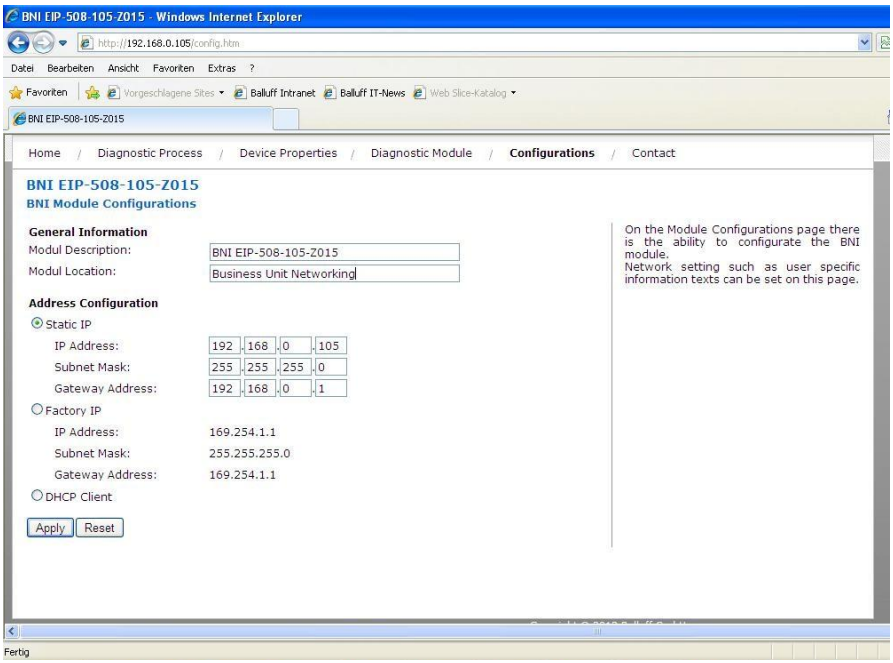

BNI EIP-508-105-Z015 - Windows Internet Explorer
US UA Mod Net 100 LK1 100 LK2
00 01 08 09
The page Diagnostic Module shows the head-module status. You can see the network ans power supply status of the module status LEDs
If information doesn't get updated automatically, use the Refresh button to reload the page.
Refresh
LED functions overview:
US
UA
MOD
NET
100
L/A 1/2
Description
"US" Sensor and Module Supply Supply voltage is OK
"UA" Actor Supply Supply voltage is OK
"MOD" Module Status Module is working correctly
"NET" Network Status Connection established
"100" Link Speed 1 Data rate on Port 1 is "100 Mbit/s FULL"
"LK1" Link Activity 1 Network connection on Port 1 is active

8 Webserver

8.6. Configurations

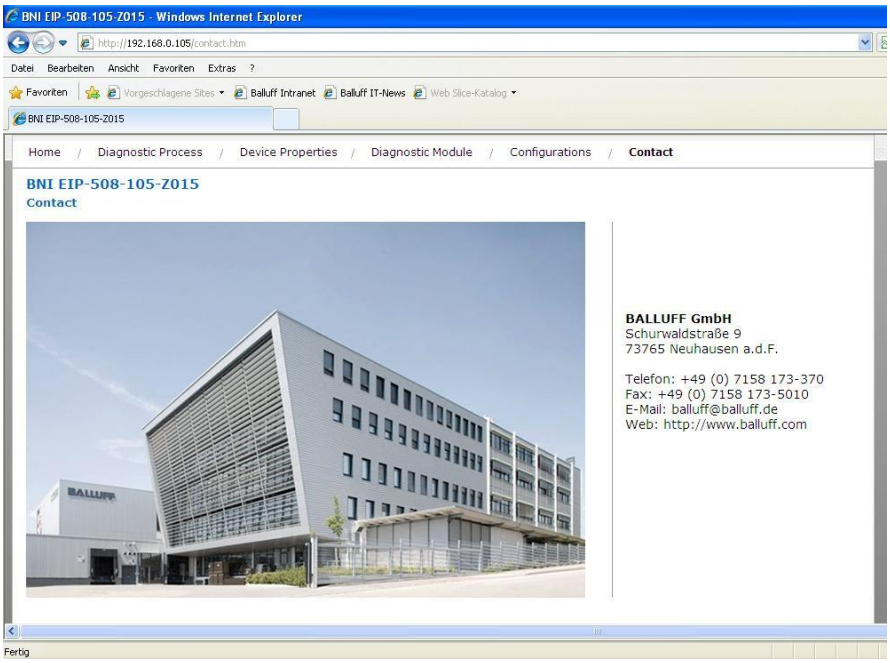
The configuration page allows you to configure the module. You can change the address, set a DHCP client and you can also assign own module information texts like a module description.
To use the configuration, you have to enter a username and a password:

Username: Balluff
Password: BNIEIP


BNI EIP-508-105-Z015 - Windows Internet Explorer
http://192.168.0.105/config.htm
Datei Bearbeiten Ansicht Favoriten Extras ?
Favoriten Vorgeschlagene Sites Balluff Intranet Balluff IT-News Web Slice-Katalog
BNI EIP-508-105-Z015
Home / Diagnostic Process / Device Properties / Diagnostic Module / Configurations / Contact
BNI EIP-508-105-Z015
BNI Module Configurations
General Information
Modul Description: BNI EIP-508-105-Z015
Modul Location: Business Unit Networking
Address Configuration
Static IP
IP Address: 192 . 168 . 0 . 105
Subnet Mask: 255 . 255 . 255 . 0
Gateway Address: 192 . 168 . 0 . 1
Factory IP
IP Address: 169.254.1.1
Subnet Mask: 255.255.255.0
Gateway Address: 169.254.1.1
DHCP Client
Apply Reset
On the Module Configurations page there is the ability to configurate the BNI module.
Network setting such as user specific information texts can be set on this page.
Fertig

8.7. Contact

This is the screen with the contact information



9 Appendix

9.1. Included material

The BNI EIP consists of the following components:

- IO-Link block
- 4 blind plugs M12
- Ground strap
- Screw M4x6
- 20 labels

9.2. Ordercode

BNI EIP-508-105-Z015

Balluff Network Interface

Ethernet IP

Functions
508 = IP 67 IO-Link Master-Module, 8 IO-Link ports

Variants
105 = Display version, 2-port switch

Mechanical version
Z015 = Material: Die-cast zinc housing
Uplink: 2 x M12x1 internal thread
Power: 7/8“ external thread
Sensor Ports: 8 x M12x1 internal thread

9.3. Order information

Product ordering code	Order code
BNI EIP-508-105-Z015	BNI006A

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